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THE DESIGN AND IMPLEMENTATION OF A PUBLIC RELATIONS PROGRAM IN SUPPORT OF THE COMPOSITE HEALTH CARE SYSTEM AT IRELAND ARMY COMMUNITY HOSPITAL, FORT KNOX, KENTUCKY

A Graduate Research Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree

of

 ${\tt Master\ of\ Health\ Administration}$ 

bу

Captain Charles M. McGibony, MS
October 1987

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### CHAPTER I

#### INTRODUCTION

# Conditions Which Promoted The Study

Today's health care industry has become increasingly more automated in the area of information management. In the past, automation in Department of Defense health care facilities has been a piecemeal, fragmented effort without any apparent centralized coordination. This has resulted in the armed services procuring and implementing separate, independent automated systems. Even within health care facilities of the same service, commonality was the exception rather than the rule. The Department of the Army has implemented some Army-wide systems in such areas as quality assurance, workload accountability, and personnel management. Other areas of automation in the clinical services area have been established independently at the individual facilities. This type of automated system management has severely limited data interface within the separate medical facilities, between hospitals within the same service, and especially between the Medical Departments within the Department of Defense. Congress has recognized the Department of Defense's need to acquire "...automated medical information systems for use in its military medical facilities" (Senate Appropriations Committee 1987, p. 152). This requirement was recognized and defined as the Composite Health Care System (CHCS). The objectives of CHCS were to: 1) improve the quality of patient care, 2) increase the efficiency of operations, 3) enhance the accuracy and availability of information, and 4) provide stand-ardized, yet flexible, computer support of essential facility operations (TRIMIS Program Office, 1986).

Implementation of the Composite Health Care System has been delayed over the past few years largely due to congressionally mandated alterations in the acquisition policy (Senate Appropriations Committee, 1987). This point was emphasized by the Assistant Secretary of Defense for Health Affairs who stated in testimony before the Manpower and Personnel Subcommittee:

We are rapidly approaching the point at which the needs of our health care beneficiaries and providers have been subsumed by the costly tests and delays in the implementation of this system. These inure solely to the benefit of competitors for the project in the computer industry. We are conducting a fair and open competition, and it is time to get on with it. (Senate Appropriations Committee, 1987, p. 152).

The Senate Appropriations Committee supported these remarks and directed "... that the Secretary of Defense expeditiously undertake the completion of any remaining necessary development, testing, and evaluation of competing systems and to acquire such system or systems as will most effectively meet the needs of the military medical system" (Senate Appropriation Committee, 1987, p.152). Oversight of this project within the Department of Defense has been delegated to the Defense Management Systems Support Center and the Tri-Service Medical Information Systems (TRIMIS) Program Office (TRIMIS Program Office, 1986).

The Department of Defense, through a competitive procurement, awarded contracts to four teams of contractors to design, develop, install, operate, and maintain the Composite Health Care System. The contractor teams were headed by McDonnell-Douglas Health Information Systems Company,

Technicon Data Systems Corporation, Travenol Healthcare Information

Services, and Science Applications International Corporation. The contractors were selected based on technical approach, corporate experience, personnel, contract management, and life cycle cost (TRIMIS Program Office, 1986). The contractors are competing for the right to implement their system throughout the more than 700 Department of Defense medical treatment facilities worldwide (TRIMIS Program Office, 1986). An operational test phase for the contractors' version of the Composite Health Care System has been scheduled to run from February 1987 to November 1987. The final centract award has been set for March 1988. The long range Army plan has called for installation of the Composite Health Care System at Beta sites in CONUS and overseas beginning in June 1988. Subsequent deployment to other Army medical treatment facilities has been scheduled from August 1989 to August 1992 (Appendix A) (TRIMIS-Army, 1987).

In order to evaluate their systems, the contractors were designated separate but similar military medical treatment facilities. Test sites were selected based upon the size of the medical treatment facility, the size and type of patient population supported, and the range of medical services provided (TRIMIS Program Office, 1986). The operational test site selected for McDonnell-Douglas was Camp Lajune Marine Base, North Carolina; Technicon's site was Charleston Naval Base, South Carolina; and Travenol's site was Sheppard Air Force Base, Texas. By September 1987, Technicon had withdrawn from the competition, leaving only three contractors.

Ireland Army Community Hospital, Fort Knox, Kentucky, was notified by Headquarters, U.S. Army Health Services Command on 28 October 1986 that the

hospital had been selected as a demonstration site to perform an operational test of the Composite Health Care System. Ireland Army Community Hospital was built as a ten-story structure that consisted of 490,000 square feet and a 500-bed capacity. The facility was formally dedicated on 1 April 1957. A construction project to upgrade and expand the facility was completed in 1980. In addition to the main hospital structure, five outlying troop medical clinics are operated on Fort Knox and are included in the operational test of the Composite Health Care System. The following workload was programmed for Ireland Army Community Hospital during Fiscal Year 1987:

TABLE 1

Ireland Army Community Hospital Programmed	Workload - FY87
Operating Beds	178
Operating Bassinets	17
Total Operating Beds	195
Daily Bed Occupancy	155
Daily Admissions	32.3
Daily Live Births	3.3
Daily Clinic Visits	1570
Radiology Monthly Procedures	953
Pharmacy Monthly Procedures	2975
Laboratory Monthly Procedures	16095

The civilian contractor selected for the CHCS operational test at Fort Knox was the Science Applications International Corporation (SAIC), an employee owned, half-billion dollar per year corporation with over 7,000 employees. SAIC had a ten-year history of health services research and

specializations. SAIC headed a team of contractors that included Digital Equipment Corporation (computer hardware), American Telephone and Telegraph (communications), and DI-STAR Medical Systems Corporation (health care software) (SAIC, 1987), (Appendix B).

SAIC incorporated software written in the MUMPS (Massachusetts General Hospital Multi-Programming System) programming language. The MUMPS language was selected for exclusive use in over 160 Veterans Administration hospitals nationwide based on Congressional mandate (Hoehl and Kuenigsberg, 1987). More than fifty percent of the commercial medical facilities have chosen the MUMPS language (SAIC, 1987).

The operational test phase has allowed SAIC and the other contractors to see how their software and hardware work under conditions of real patient care services. The services directly affected by the test included: patient administration, patient appointment scheduling, laboratory services, radiology, nursing, clinical dietetics, pharmacy, and medical information system management (SAIC, 1987). A functionality overview of these services can be found in Appendix C. The outpatient pharmacy was the only operational area as of 1 October 1987. Other services will be phased in throughout the remainder of the hospital during the October 1987 to February 1988 timeframe. Once fully implemented, CHCS will drastically change the way health care has been delivered throughout the facility. Patients should experience less waiting because of enhanced management of health care resources. For example, prescription orders will be delivered electronically from the clinics and the wards directly to the pharmacy; thus, reducing processing time and hopefully having prescriptions ready for

pickup when the patient arrives. The amount of paper will be reduced for patients and staff as more information can be entered directly by keyboard and less by manual methods. Additionally, patients should need to visit fewer offices within the hospital once various activities, such as inpatient registration, patient records access, and laboratory requests, can be accomplished from most locations in the hospital and the troop medical clinics.

The full implementation of the Composite Health Care System will consolidate and expand the automated capability of Ireland Army Community Hospital. This has indeed been a unique opportunity for the hospital to upgrade its operation. The technological change had to be implemented within a relatively short amount of time. The Commander and Deputy Commander for Administration recognized the need to keep the hospital staff, patients, and local community informed of these rapid changes and decided to incorporate public relations as an integral part of the implementation of the Composite Health Care System at Ireland Army Community Hospital. The scope of this study was to establish an effective public relations program in support of the Composite Health Care System within the financial and personnel constraints of the hospital.

# Statement of the Research Question

To design and implement a public relations program in support of the Composite Health Care System at Ireland Army Community Hospital, Fort Knox, Kentucky.

### **Objectives**

- a. Develop a working definition of Public Relations.
- b. Review and evaluate the existing public relations functions at the hospital.

- c. Incorporate appropriate existing public relations activities in support of the Composite Health Care System.
- d. Develop new public relations projects to meet the specific needs of the Composite Health Care System.
- e. Enhance internal and external communications to facilitate awareness and acceptance of the Composite Health Care System.

# Criteria

- a. The public relations program was consistent with the goals and objectives of the Army Medical Department, the U.S. Army Health Services Command and the Joint Commission on Accreditation of Hospitals.
- b. The public relations program was integrated into all areas of the hospital.

## Assumptions

- a. There was no significant change in the number of personnel working with public relations duties at Ireland Army Community Hospital.
- b. Additional financial support was available on a limited basis for CHCS public relations functions through TRIMIS Program Office and the Science Applications International Corporation.

#### Limitations

- a. A formal public relations program had to be organized, managed, and monitored with existing personnel resources.
- b. Funding for any public relations activities had to be within the budgetary limitations of the hospital and any additional funding available from additional outside sources.

# Review of the Literature

Public relations in hospitals is not a new phenomenon. However, its use has risen dramatically during the past decade as a result of increased competition, rising health costs, growing malpractice concerns, and en, sis on the quality of care. There is a wide range of literature available on public relations in general and on hospital public relations specifically. Literature on Army hospital public relations was primarily limited to military regulations and pamphlets. However, most public relations concepts are applicable to a military medical facility.

The definition of public relations has many variations. Harlow (1976) analyzed 472 definitions and produced the following definition: "Public relations is a distinctive management function which helps establish and maintain mutual lines of communications, understanding, acceptance and cooperation between an organization and its publics...."(p. 36). Cutlip, Center and Broom (1985) defined public relations as "the management function that identifies, establishes, and maintains mutually beneficial relationships between an organization and the various publics on whom its success or failure depends" (p. 4.). Canfield and Moore (1973) suggested that "public relations is a social philosophy of management expressed in policies and practices, which, through two-way communication with its publics strives to secure mutual understanding and goodwill" (p. 4.). Public Relations Society of America referred to public relations as "the function that maintains an organization's relationship with society in a way that most effectively achieves that organization's goals" (Karolevitz, 1983, p. 1). The American Society for Hospital Public Relations (1984) stated that "public relations is a systematic program of goal - oriented communications designed to support the needs of the institution" (p. 5).

Although there is no consensus, the numerous definitions of public relations shared the following common themes: 1) a planned and sustained program conducted by an organization's management, 2) the establishment of two-way communication between the organization and its various publics, and 3) the production of specific changes in awareness, opinions, attitudes, behaviors inside and outside the organization (Cutlip, Center, and Broom, 1985). Any successful public relations program, in support of the Composite Health Care System, must address these themes.

The literature stated that a hospital must deal with several publics or constituencies. It is important to have an understanding of the definition of a public and what constitutes the public for Ireland Army Community Hospital. The Texas Hospital Associaiton (1979) defined a public as "anyone interested in, or affected by, an institution - or whose opinion can affect the institution" (p. B-1). Kurtz (1969) wrote that the term "... implies that the public is a collective, unified group of one mind, one opinion, and one spirit. This obviously is incorrect. The public is not great monolith, but rather a group of segments, often overlapping and at times, almost indefinable" (p. 12). A hospital's publics can be grouped into external and internal publics (Cutlip, Center, and Broom, 1985).

The external publics of a hospital include the local community, government agencies, professional organizations, and the media. As a demonstration site for the Composite Health Care System, Ireland Army Community Hospital's involvement with these external publics can be expected to increase. The local community must be kept informed about the system because many activities on the installation will be affected, e.g., the Directorate of Engineering and Housing is responsible for many of the work requests in preparation for the installation of the CHCS equipment.

Government agencies, such as the TRIMIS Program Office, have a need to know how the project is progressing so that the contractural competition can be monitored. The hospital must also be sensitive to the needs of SAIC and the other corporate team members. A positive relationship with the contractor in the initial stages will provide the basis for a successful transition once the system is implemented. Finally, demands from the media in keeping Fort Knox and the surrounding community informed will most likely increase significantly as the demonstration progresses.

The internal publics of a hospital include patients and families, visitors, medical staff, employees, administration, and volunteers. Recent articles stress the vital role of the employee in public relations. The American Society for Hospital Public Relations (1984) suggested that "effective public relations begins with employees, their attitudes, and the quality of service they provide" (p. 25). A patient's perception of a hospital and the quality of care received is highly influenced by the amount of information received and the attitude of the employees (Anders, 1984; O'Sullivan, 1984; Quinn, 1986). Several authors stress the need for improving personal relations and communications between employees and patients (Fritz and Miller, 1984; Peters, 1985; Riffer, 1984).

The internal publics of Ireland Army Community Hospital play a vital role in the successful implementation of the Composite Health Care System. Final success of the system will be greatly influenced by whether hospital employees and patients accept it in a positive manner or resist the change.

It has been a common tendency for organizations and individuals to resist change. According to Zander, some of the causes for resistance to change in organizations are:

- 1. The purpose of the change is not clearly understood.
- 2. Persons affected by the change are not involved in planning for the change.
  - 3. The change causes anxiety over job security.
  - 4. There is poor communication.
- 5. Existing work customs and work group relationships are abruptly changed.
- 6. The appeal to change is based on loyalty rather than on problem solution or goal achievement.
  - 7. There is fear of failure.
- 8. Work pressure is excessive and the change is seen as intensifying the pressure.
- 9. The change is seen as requiring too high a personal cost or providing inadequate reward.
- 10. A vested interest of the individual or his work unit is involved -- the "we" versus "they" problem.
- 11. Respect for and confidence in the person or group initiating the change are lacking.
- 12. There is prevailing satisfaction with the status quo (Powers, 1984).

Kotter and Schlesinger (1982) wrote that there are six methods in dealing with resistance: education and communication, participation and involvement, facilitation and support, negotiations and agreement, manipulation and co-optation, and explicit and implicit coercion. A good public relations program closely resembles the education and communications method of dealing with resistance. This method emphasizes the need for and logic of a change through verbal and written communication. Clearly, an effective public relations program can help overcome resistance.

Gibson and Rose (1986) stated that in order to overcome computer resistance, managers must focus on the users of the system. The authors wrote that automation must be shown as an asset in supporting personal and organizational goals. They emphasized the need for structured, hands-on training. An internal public relations program can help facilitate user acceptance through keeping hospital employees informed of the system's progress and to supplement the training effort.

Patients, obviously, are a critical element of a hospital's internal public. Several articles point out that most patients do not have the knowledge or experience to evaluate the efficiency or effectiveness of a particular health care provider or treatment procedure (Doering, 1983; Ben-Sira, 1983; Kotler & Clarke, 1986). Instead, much of a patient's perception about the quality of care received is based on criteria such as staff courtesy, range of services provided, appearance of the hospital, and hospital reputation. It was interesting to note that the availability of state-of-the-art technology and equipment was among the top four patient criteria for quality of care (Kotler & Clarke, 1986).

There is great potential for positively influencing a patient's perception of care through a proactive public relations program that keeps patients aware of the implementation of technology such as CHCS. Proper utilization of the system by hospital employees can hopefully reduce administrative requirements of the staff, thus allowing more personalized care with patients, which is another important quality of care indicator for patients (Doering, 1983; Kotler & Clarke, 1986).

Personal attention of the patient must remain a primary concern even after CHCS is implemented. Naisbitt (1984) refers to this phenomenon as

"high tech/high touch... whenever new technology is introduced into society, there must be a counterbalancing human response - that is, high touch - or the technology is rejected" (p.35).

The literature was in agreement that any successful public relations program must have the support of top management (Cole, 1981; Cutlip, Center & Broom, 1985; Karolevitz, 1983; Powers, 1984; and Riggs, 1982). Although the Composite Health Care System demonstration was mandated from higher authorities, the depth of commitment by the management of Ireland Army Community Hospital was illustrated by their emphasis on establishing and implementing a public relations program for the project.

# Research Methodology

- a. Conducted a survey of the current literature on public relations.
- b. Evaluated the existing public relations functions by reviewing written hospital policies, regulations, files, and inspection results.
- c. Provided a descriptive study of public relations initiatives and their implementation in support of the Composite Health Care System at Ireland Army Community Hospital.

#### CHAPTER II

#### DISCUSSION

## Organization

The public relations function at Ireland Army Community Hospital has been most closely associated with the Public Affairs Officer, an additional duty assigned to the Adjutant. The responsibilities of the Public Affairs Officer fall into three major areas: Command Information Program, Public Information, and Community Relations Program.

The Command Information Program was described by HSC Pamphlet 360-1 as "the only program with the sole purpose of promoting maximum communication between a commander and his internal audiences" (Health Services Command, 1986, p.2-1). The Public Affairs Officer must assist the Commander in disseminating topics of command interest to include command policies, safety, career programs, education, training, voting, equal opportunity, drug and alcohol abuse, recreation information, legal and medical assistance, and suggestion programs. The Public Affairs Officer has a wide range of forums to get out the information: daily bulletin, command letters, bulletin boards, displays, posters, closed circuit television, videotapes, Commander's Call, group meetings, committee meetings, formations, and informal channels (Health Services Command, 1986). Most of these resources are currently being used at Ireland Army Community Hospital.

Public information was defined as "... information and other material disseminated to the public(s) via press, radio, television, and other mass communication media" (Health Services Command, 1986, P. Glossary-1).

Public information is aimed toward the external as well as internal publics of the hospital. Close coordination by the hospital Public Affairs Officer with the installation Public Affairs Office is vital to the success of a Public Information Program. A key function of the Public Affairs Officer is to ensure that there is no credibility gap between the hospital and the media. The Public Information Program includes activities such as: news interviews, handling queries about accidents and incidents, Hometown News Release Program, release of patient information, release of photographs and videotapes, the Freedom of Information Act, and the Privacy Act. (Health Services Command, 1986).

The third major area for a Public Affairs Officer is the Community Relations Program. It is defined as "... the ongoing relationship between a military community and a civilian community" (Health Services Command, 1986, Glossary-1). The Community Relations Program can involve support of almost any local community activity on an individual or group basis. A few examples of community relations at Ireland Army Community Hospital have included sponsoring of a medical explorers group, conducting a Health Fair, supporting the Combined Federal Campaign, and participating in local functions such as EXPO 86, Golden Armor Field Day for handicapped children, and Golden Armor Festival Week. Almost any positive action that helps develop understanding and support of the local community for the hospital or the U.S. Army falls in the arena of community relations.

The development and implementation of a public relations program in support of the Composite Health Care System is a project that falls within the scope of the Adjutant's responsibilities as the Public Affairs Officer.

However, the large scale of the project and the rapid, yet sustained nature of its implementation, justified the appointment of a separate officer dedicated to public relations for the Composite Health Care System. This task was delegated to the Administrative Resident as a special project. Close interaction with the hospital Adjutant and the installation Public Affairs Office must be maintained because of the need to coordinate information and media support. Keeping the internal and external publics informed about the Composite Health Care System and its progress was viewed as critical to the overall acceptance of the system. This attitude was enforced when the CHCS Public Relations Officer was made a member of the CHCS Management Team.

The formation of a consolidated management team was important to the implementation of a system as comprehensive as the Composite Health Care System. A management team must include the necessary disciplines to provide expertise yet be flexible enough to respond to short suspenses and rapid changes. At Ireland Army Community Hospital, this was accomplished through the establishment of a Project Team that met on a weekly basis to discuss and monitor the implementation of the system. The Project Team consisted of the following individuals:

### TABLE 2

# CHCS Management Team

Program Director	LTC James Hill
Financial Advisor	MAJ John Peden
Nursing Project Officer	MAJ Ollie Gray
Physician Project Officer	MAJ Chris Dempsher
Systems Project Officer	CPT John James

Systems Analyst

Site Preparation Project Officer

Education/Training Project Officer

Space Manager

Public Relations Project Officer

Ms. Natella Davidson

MAJ Stuart Mervis

SFC Ruel Bowman

Mr. Robert Skaggs

CPT Charles McGibony

The Project Manager, Lieutenant Colonel Hill, also assigned as Chief, Clinical Support Division, monitored all project activities, keeping the hospital commander informed of the system's progress, and interfacing with outside agencies.

The Financial Advisor was Major Peden, Chief, Resource Management
Division. He gave budgetary input and advice and closely coordinated and
monitored funding of the project.

The Nursing Project Officer was Major Gray, a full time program representative for the Department of Nursing. She oversaw the implementation of the system on nursing units, wards, and the operating room. She provided liaison between all nursing activities, hospital administration, ancillary services, and the commercial vendors.

The Physician Project Officer was Major Dempsher, who provided medical expertise to the Project Team. Assigned as Chief, Department of Pathology, his responsibilities were similar to the Nursing Project Officer, although on a part-time basis. He represented the physician staff in resolving problems and researching questions pertaining to the system.

The Systems Project Officer was Captain James, the hospital's Information Management Officer. He served as the institution's resident expert on automated hardware and software. He coordinated closely with the TRIMIS Project Office; Headquarters, U.S. Army Health Services Command; and the Science Applications International Corporation.

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Closely associated with Captain James was the Systems Analyst, Ms.

Davidson. Assigned as Chief, Data Processing Division within the hospital's Information Management Office, Ms. Davidson provided organizational expertise on automated software. She coordinated the loading of data, resolving software problems, and developing change requests to the software packages.

The Site Preparation Project Officer was Major Mervis, the Chief,
Logistics Division. He oversaw the coordination of minor construction
contracts needed to upgrade the facility in implementing the Composite
Health Care System. In addition, he served as the key staff member in the
storage and accounting of the computer hardware, paper, and additional furniture until it is put into operation.

The Education/Training Project Officer was Sergeant First Class Bowman, the Non-Commissioned Officer in Charge of the Nursing Education and Staff Development Service. His responsibilities included close coordination with the TRIMIS Project Office and the Science Applications International Corporation in determining training needs and schedules.

The Space Manager was Mr. Skaggs, supervisor of the Resource Management Division's Management Analysis Branch. Part of his responsibility was to review and staff requests for internal moves within the facility. For example, additional space was required early in the project to allow for expansion of the existing computer room and the establishment of a Project Office. Changes of this type were coordinated through the Space Manager.

Being an active member of the Composite Health Care System Project Team was critical for the Public Relations Project Officer for several reasons. The credibility and importance of the position was enhanced through recognition as a project team member. Attendance at the weekly team meetings kept the Public Relations Officer current on the progress of CHCS. Interaction with other team members kept the Public Relations Officer informed about their needs in the area of public relations. Project team members also served as vital sources of ideas and suggestions. Membership on the Composite Health Care System Project Team served as a base from which to launch a Public Relations Program.

### Internal Publics

As with any sound Public Relations Program, the target audience for the Composite Health Care System was divided into internal and external publics. The internal publics of the hospital, as previously stated, consisted of medical staff, employees, administration, volunteers, patients and families, and visitors. For purposes of the Composite Health Care System and clarity of discussion, the internal publics of Ireland Army Community Hospital were further subdivided into the employees and patients. The employees category encompassed the military and civilian personnel who work in Ireland Army Community Hospital and its troop medical clinics. The patients category included the inpatients, outpatients, family members, and visitors who enter the hospital and its clinics. These two types of internal publics have different needs for information about the Composite Health Care System. The ways to reach these publics also differed.

The assigned strength of military and civilian employees (as of 1 September 1987) within the hospital and troop medical clinics was 429 military personnel and 505 full-time civilian for a total of 934 employees.

In developing an internal public relations program for the hospital employees, it was necessary to begin with some type of baseline of their exposure to automated systems. A quick estimate was to determine the extent of automation that currently exists in the hospital and troop medical clinics. There were 130 computer terminals or mini-computers throughout the facility prior to CHCS. (Appendix D). This figure did not include the numerous printers, modules, and disk drives used to support the various systems in use throughout the hospital and troop medical clinics. The idea of a computer system would be a new experience to most areas of the hospital. In fact, some currently used systems are scheduled to be incorported into the Composite Health Care System. Such systems include the Automated Quality of Care Evaluation Support System (AQCESS), the Patient Appointment System (PAS), Admissions and Dispositions, and the Medical Expense and Performance Reporting System (MEPRS).

The internal public relations program must keep the employees informed and gain their support. An initial step in informing the hospital employees was to present a briefing on the Composite Health Care System. The briefing consisted of a ten-minute videotape followed by a lecture with viewgraphs that covered a broad overview of the Composite Health Care System. The briefing was given by personnel of the TRIMIS Project Office. Briefings were given on 14 occasions during 5 - 7 November 1986 in order to maximize attendance. During the presentation, emphasis was placed on Ireland Army Community Hospital being the only Army hospital involved with testing the system. This fact developed some interest and pride among the employees as well as informing them of the project. New employees, arriving after the initial orientation, are briefed on the system during the monthly Commander's Orientation.

In order to keep the employees informed of the system's progress, an internal newsletter was developed (Appendix E). The newsletter was compiled by the Public Relations Project Officer and the Education/Training Project Officer. It was decided to limit the newsletter to one page, to use a dot matrix printer to give it more of a computer generated appearance, and to emphasize topics of local interest. Draft editions of the newsletter were submitted through the Program Director for final approval prior to publication. Early editions of the newsletter were amateurish; however, improvements were made with each subsequent edition. For example, the dot matrix effect was deleted on the second edition because of its poor print quality.

The newsletter was used to assist in the next stage of the internal . public relations program - increased employee involvement and awareness of the system. In December 1986, it was decided to have a contest to give the system a unique name and logo. The name Composite Health Care System is applicable to the system scheduled to be implemented throughout the Department of Defense.

A locally developed name and logo stimulated employee interest and awareness of the system. The contest was announced through the distribution of a flyer (Appendix F), the newsletter, and the hospital bulletin. A one hundred dollar savings bond and a Certificate of Appreciation were established as the winning selection's award.

A committee was selected to review the entries. The five-member committee consisted of a Medical Corps Major, a Nurse Corps Major, a Sergeant First Class, a Private First Class, and a GS-05 civilian. The committee had two white females, one black male, one Hispanic male, and one white

male. Two of the individuals worked in activities outside of the main hospital building. None of the members was involved with the initial development of the contest nor did any have an entry in the contest. This committee mixture was established to allow for cross-representation of various hospital duty sections and personnel backgrounds.

There were thirty-two submissions in the Name the Computer Contest.

Each committee member was given an advance copy of the entries to review.

During the committee meeting, open discussion was conducted among members for what they thought were especially good entries. Committee members were instructed to select their top three choices. A weighted value of five was given for each first place vote, three for second, and one for third. The top three entries are in Appendix G.

The winning name in the contest was CHIPS, an acronym for Composite Healthcare Information Program System. The accompanying logo was originally submitted as a computer terminal but this was changed to an animated chipmunk in order to create more personality. The committee's selection was based on the simplicity of the word and its dual meaning with computer terminology.

Developing the final chipmunk logo proved to be more involved than originally anticipated. The installation Training Aid Support Center estimated a six-week turn around time. This was felt to be too long and estimates from commercial artists were too expensive. Finally, a military member volunteered to draw the chipmunk logo in final form.

The new name and logo were incorporated with other forms of internal communications. The CHCS newsletter, for example, was renamed the CHIPS Bulletin and the chipmunk logo was added as part of the bulletin mast head.

The next internal public relations initiative was to design and print a poster with the CHIPS name and logo. Attempts were made to have a multicolored poster done locally by a commercial firm. The request was disapproved by the installtion print plant because of the capability to perform the job on post. This required going back to the installation Training Aid Support Center and having them design a photo ready copy from which a poster could be printed. This step added an additional six weeks to the project. Once the photo ready copy was completed, poster selection was limited to one color of paper and a single color ink. The final choice was 28 inches by 22 inches yellow poster board with dark blue ink. The name of the hospital, CHIPS, and the chipmunk logo were printed at the top half of the poster. The bottom half of the poster was left blank to allow for adding current information about the computer system, such as training schedules.

Another initiative taken to keep the hospital staff informed was a slide presentation and briefing. The Program Director tailored a briefing with information and slides specifically addressing the impact of the Composite Health Care System at Fort Knox. The slides included scenes of the installation, the hospital, and personnel working in the hospital. The briefing was presented to the medical, nursing, and administrative staffs. The briefing was continually updated by the Program Director.

Scheduling the training of hospital employees on how to use the Composite Health Care System was to be a significant project. The training had to be done quickly, yet effectively, to minimize disruption of routine hospital operations while implementing the system. The importance of training was highlighted by Lieutenant Colonel Roger Brown from the

TRIMIS-Army Office who wrote, "there is a considerable amount of information available which correlates employee acceptance and successful implementation of a new system with the amount and quality of training done prior to full development" (TRIMIS-Army, 1987). Training for hospital personnel was scheduled to be conducted in the Nursing Education and Staff Development Service. The Nursing Education and Staff Development Service training area on the ninth floor was upgraded with the installation of static resistant carpeting to reduce noise, partitions to provide separate training areas, and the installation of additional outlets. Equipment for the training area included computer terminals, printers with sound enclosures and stands, trainee desks and chairs, trainer tables, audiovisual equipment, bookshelves, and wall mounted liquid chalk boards.

Various floor plans for the training areas were also available, depending on the number of students using each area (TRIMIS-Army, 1987), (Appendix H).

Training sessions vary from three to twelve hours depending on the individual's job and level of supervision. Following training, an individual must then apply this knowledge to the actual job situation.

The transition to a new automated system can lead to anxiety and resistance by hospital employees. A positive, proactive public relations technique can help reduce this apprehension. Recognition of employees who completed training was a method to accomplish this task. A unique certificate of training has been designed for future issue. Another means of recognition was the procurement of 3/4 inch fluorescent orange, stick-on reflective dots with the word CHIPS printed in black (Appendix I). Two thousand dots were ordered at a total cost of \$244.00. The dots can be placed on the already existing hospital name badges worn by most hospital

employees. The reflective dots provided a quick means of rewarding individuals for completing training and makes them easily recognizable to other employees in the hospital. This simple, colorful means of recognition has contributed to the success of the training program.

Patients comprise the other major subgroup of the internal publics. The exact size of this population would be difficult if not impossible to calculate. It was reported by the Fort Knox Directorate of Resource Management that the total population served by Ireland Army Community Hospital was 124,597 (Appendix J). This figure included active duty personnel, civilian personnel, retirees, reservists, and family members, all of whom are potential patients or visitors to the hospital. This population, as it is at many military facilities, is very transient. This factor increased the need to continually inform the external population about the Composite Health Care System.

There are several ways to communicate with the patient public. Some of the methods used for employees, such as posters and distribution of the CHIPS newsletter, can also be used. One of the biggest effects the Composite Health Care System had on patients during the initial implementation phase was registration in the CHCS data base. Because outpatient pharmacy was the first area to go on-line with the new system, patients with new prescriptions were identified as those who needed to be registered first.

Registration for outpatients represented another source of inconvenience because of the additional wait prior to turning in a prescription.

Posters and flyers (Appendix K) were used in the outpatient lobby to inform patients of this new requirement. In addition, employees of the Science

Applications International Corporation were stationed in the outpatient lobby to direct patients to the registration terminals. These directors were readily available to provide a face-to-face explanation on why registration was required and what the system was designed to do. This personal contact with patients reduced confusion and frustration. If patients perceived the Composite Health Care System as a benefit, they would be more likely to accept it or at least tolerate it.

Other sources of information available for the internal publics are produced by agencies outside the hospital. The Tri-Service Medical Information Systems Program Office has produced a series of pamphlets, brochures, and information papers for distribution. These publications were often used to support the TRIMIS Program Office briefings mentioned earlier. Publications of this type provided a good foundation on the background and basics of the Composite Health Care System. The publications were professionally prepared, colorful, and easy to read. The obvious disadvantage of external publications was that it could have quickly become outdated and was not geared toward any specific medical treatment facility. These disadvantages reinforced the requirement for a facility public relations officer to supplement the external publications with locally produced information that specifically addressed the needs and changes occurring at a specific site.

A videotape of the Composite Health Care System was also available through the TRIMIS Project Office. The videotape, like published material, was limited in its timeliness and specificity. Ireland Army Community Hospital was involved in the production of a new videotape about CHCS. A film crew from the Department of Defense, escorted by a TRIMIS Program Office representative, visited each of the four demonstration sites. Fort

Knox was the final stop on the film crew's agenda. An advance copy of the script was sent to the Program Director at Ireland Army Community Hospital in early May 1987. The Public Relations Project Officer was delegated the responsibility of coordinating sites, times, and personnel for filming the scenes.

The film crew arrived on 13 May 1987 and reviewed the scenario with the CHCS Public Relations Officer. The next day was used to film scenes within the hospital and on the installation. The intent was to provide a flavor for the types of missions that are performed at Fort Knox. Internal scenes of the hospital included the outpatient pharmacy, radiology, the laboratory, the intensive care ward, internal medicine clinic, and the new computer room. External scenes included the Bullion Depository, soldiers in training, and the exterior of the hospital.

The scenes from the various demonstration sites were edited into a videotape that was previewed on 22 June 1987 during a Defense Management Systems Support Center Conference in Denver with the hospital Commander and Program Director in attendance. Additional editing was still required and final release of the videotape has been scheduled for early fall of 1987. Plans include showing the film at all medical treatment facilities and at military training courses taught at the Academy of Health Sciences, Fort Sam Houston, Texas. Printed and audio-visual material produced by agencies such as the TRIMIS Program Office can also be used to inform external publics about the Composite Health Care System.

# External Publics

The external publics for Ireland Army Community Hospital were the local community, government agencies, civilian contractors, and the media. A project on the magnitude of CHCS has obviously generated a great deal of

external interest. The congressional interest in the project has already been mentioned. The potential multi-million dollar contract has also created a great deal of attention. Another important factor was the uniqueness of the project. The simple fact that Ireland Army Community Hospital was a test site created an intense amount of scrutiny. Newly developed software was being tested in a live environment as opposed to a research lab. The quality of CHCS implementation at Fort Knox will, in large part, determine whether the system will accomplish the major objectives of improved quality of care and efficiency. The evaluation process has generated more than the usual external attention that is focused on the hospital. The need to keep the external publics informed was an important aspect of the public relations program.

One of the first external publics to be briefed about the Composite Health Care System was the Fort Knox Chief of Staff, Colonel Wolfe and key members of the installation staff. The hospital Commander, Colonel Richard G. Kirchdoerfer and the Program Director, LTC James R. Hill, briefed the installation staff on 6 November 1986. Keeping the installation staff briefed from the beginning of the composite Health Care System was viewed as a critical step in obtaining the necessary support needed for implementation of the system. This was especially true in dealing with the Directorate of Engineering and Housing. The installation staff's positive and responsive support enabled the civilian contractor, Woodbine Corporation, to expand the existing computer room by over 800 square feet. The project was completed on 1 April 1987, four and one-half months after the initial engineering survey. To put this accomplishment in perspective, it took less time to expand the computer room than to have the CHIPS posters printed.

The new computer room was formally dedicated with a ribbon cutting ceremony on 14 May 1987. The Fort Knox Commanding General, Major General Thomas H. Tait, representatives from the Directorate of Engineering and Housing, and the hospital Commander, Colonel Kirchdoerfer, were on hand to help cut the ribbon. The event was included in the CHCS videotape. Immediately following the ceremony, a tour was conducted of the new computer room to include viewing the hardware.

Another crucial factor in communicating with the external public was the use of media support. The installation newspaper, <u>Inside the Turret</u>, provided an effective means of disseminating information to a wide audience both on and off the installation. An initial article about the Composite Health Care System was published in the post newspaper on 12 February 1987 (Appendix L). This article, entitled, "DoD using Ireland as one of four test sites for computer contracts", announced to the hospital's external publics the scope and uniqueness of the project.

Media support was also available from outside sources. The TRIMIS Project Office was responsible for news release to various military and civilian professional journals. The Science Applications International Corporation has also released information about the project, to include an article in their company magazine, <a href="Newsgram">Newsgram</a>. Media attention will obviously increase as CHCS becomes more widely implemented. The Public Relations Project Officer should screen the appropriate publications to monitor the media activity. When the local activity is mentioned in a national publication, it should be brought to the attention of the hospital command group and the hospital employees. Positive media attention aimed at the external publics can serve to bolster the pride and awareness of the internal publics.

The external interest focused on the hospital has created a large number of site visits from representatives of various agencies.

Individuals from the TRIMIS Project Office and SAIC are frequent visitors.

Representatives from the Government Accounting Office came to Fort Knox on 28 May 1987 to assess the site preparation and implementation of the project. Brigadier General Billy Johnson, Deputy Commander, U.S. Army Health Services Command, visited the hospital on 4 August 1987. Project managers from facilities designed as beta sites, such as Eisenhower Army Medical Center, have also come to Fort Knox. Potential visitors include The Surgeon General of the Army and members of Congress. The Program Director must be able to brief and update these visitors on a continuous basis.

One of the most effective ways to brief the external visitors is to use the locally produced slide presentation that has also been used for the internal publics. The slides must be kept updated, but this has not required a great deal of time to accomplish. Most of the background information will remain the same. A typed text can also be produced to accompany the slide presentation so that someone other than the Program Director could use it if necessary. The slide show, as previously mentioned, can also be used to highlight aspects of the CHCS program that are unique to Fort Knox and Ireland Army Community Hospital. As part of the overall briefings, most external visitors were given a tour of the expanded computer room and other areas of the hospital. The briefing and tour could also be used for other sectors of the external public, such as unit commanders and wives clubs.

### Summary

The Composite Health Care System demonstration project is an on-going program at Ireland Army Community Hospital. The Public Relations Program in support of the Composite Health Care System continues to exist. It is anticipated that it will remain a viable, active part of the total implementation process for several years.

### CHAPTER III

### Conclusion and Recommendations

### Conclusions

The Composite Health Care System was the start of a long term plan to implement a standardized automated information system to help improve the delivery of health care in Department of Defense medical facilities worldwide. Ireland Army Community Hospital has been thrust into the operational test phase of the program on relatively short notice. A positive, proactive public relations program was considered the most effective way to inform the hospital's internal and external publics about the system. Composite Health Care System public relations program at the Department of Defense and Department of the Army level was very limited and basic. This forced Ireland Army Community Hospital to design and implement its own program. No additional staffing and limited funding were available for such a project. Comparisons to similar projects at other operational test sites were not made during this study due to the constraints and amount of sensitive information resulting from the competitive contracting process. Any measure of success for the CHCS public relations program is purely subjective. It can only be assumed that the acceptance of, and knowledge about, the Composite Health Care System would have been restricted without the development and implementation of a formalized public relations program.

### Recommendations

It is recommended that a public relations program in support of CHCS should continue at Ireland Army Community Hospital. Personnel turnover alone will require an on-going need to inform and train people on the system. As a demonstration site, Ireland Army Community Hospital will

serve as a source of information for those facilities projected to receive the system. This is true for any public relations programs developed at these sites. Even if more sophisticated, higher level programs are developed, the need exists for local facilities to tailor public relations programs to their specific needs.

The steps in this study can provide a basis for which to start local public relations programs in support of the Composite Health Care System at other medical treatment facilities. The major factor in the success of any program is command support. No program can begin or continue without it. An individual should be appointed to coordinate the public relations project for CHCS. The individual does not necessarily need to be the Public Affairs Officer, however, close interface with the medical facility's and installation's Public Affairs Office must be maintained. The individual selected should be included on the facility's implementation management team. This selection gives the public relations function the needed visibility, credibility, and interaction necessary for a successful program. The basic principles of public relations, such as those found in most public relations textbooks and journals, can serve as the background for starting a program.

As more facilities implement the Composite Health Care System, the exchange of public relations initiatives should be encouraged. Any future studies of the Composite Health Care System should consider comparing facilities which developed formal public relations programs to those that did not.

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Appendix A

CHCS Implementation Schedule - Army

### CHCS Implementation Schedule - Army

Jun 88	Eisenhower Army Medical Center Blanchfield Army Hospital, Fort Campbell
Sep 88	Walter Reed Army Medical Center Tripler Army Medical Center
Dec 88	Nurenberg Army Hospital
Aug 89	Landstuhl Army Hospital
Nov 89	Ireland Army Hospital, Fort Knox (Upgrade) Landstuhl Hospital - Clinics Brooke Army Medical Center
Feb 90	Moncrief Army Hospital and Clinics, Fort Jackson Brooke Army Medical Center - Clinics Augsburg Army Hospital and Clinics Martin Army Hospital, Fort Benning
May 90	Martin Army Hospital - Clinics Womack Army Hospital, Fort Bragg
Aug 90	Womack Army Hospital - Clinics Winn Army Hospital and Clinics, Fort Stewart Walson Army Hospital and Clinics, Fort Dix
Nov 90	Letterman Army Medical Center and Clinics Kimbrough Army Hospital and Clinics, Fort Meade Frankfurt Army Hospital
Feb 91	Frankfurt Army Hospital - Clinics DeWitt Army Hospital and Clinics, Fort Belvoir
May 91	Weed Army Hospital and Clinics, Fort Irwin Heidelberg Army Hospital and Clinics
Aug 91	Noble Army Hospital and Clinics, Fort McClellan Cutler Army Hospital and Clinics, Fort Devens
Nov 91	Darnall Army Hospital and Clinics, Fort Hood Patterson Army Hospital and clinics, Fort Monmouth
Feb 92	Hays Army Hospital and Clinics, Fort Ord Reynolds Army Hospital and Clinics, Fort Sill Weurzburg Army Hospital

May 92 Lyster Army Hospital and Clinics, Fort Rucker Keller Army Hospital and Clinics, West Point Wurzburg Army Hospital and Clinics Seoul Army Hospital

Aug 92 Seoul Army Hospital - Clinics Evans Army Hospital and Clinics, Fort Carson Bayne-Jones Army Hospital and Clinics, Fort Polk

Sites not listed are to be implemented after Aug 92.

Appendix B
SAIC Project Organization For CHCS

AT&T CHCS PROJECT ORGANIZATION DIGITAL CHCS PROJECT. Lee R. Murphy Project Manager Lew Taynton Deputy PM Mike Congleton Assistant PM SAIC **DI-STAR**  Science Applications International Corporation – SAIC



Appendix C
CHCS Functionality Overview

# FUNCTIONALITY OVERVIEW

- Patient Administration
- Patient Appointment and Scheduling
- Laboratory
- Radiology
- Pharmacy
- Nursing

Clinical Dietetics

Kernal (Core function)



VTC0310(861211) -Ward Management -Nutrition Analysis -Menu Planning SAIC Clinical Dietetics -Inpatient Care Nursing CHCS SOFTWARE APPLICATIONS -Test Reporting Laboratory -Ordering Patient Administration — System Management
— Reporting -Episode Records -Business Office CHCS Core -Order Processing Pharmacy -Inventory Patient Appointment -Clinic Management and Scheduling -Appointments -Registration -Image Tracking Radiology C-2

# GENERAL CAPABILITIES

- Identify and display patient data
- Ad hoc reports and displays
- System security
- Operational and workload reports
- Manage clinical orders and results
- QA
- DEERS checking



# PATIENT ADMINISTRATION

- Patient registration
- Patient episode data
- Patient bed management
- Medical record support
- (future) Medical service accounts
- (future) Medical records tracking



# PATIENT APPOINTMENT & SCHEDULING

- Patient registration
- Create / maintain schedules
- Appoint patients (search, booking, modifications, notification)
- Record patient encounter
- (future) Waitlist

SAIC -

### LABORATORY

- Orde, processing
- Specimen processing
- Results management
- Lab management support
- Equipment interfaces
- Bar code labels
- (future) Blood bank
- (future) Drug testing
- (future) Tumor registry
- (future) Anatomical pathology
- (future) Inventory management

- Inquiry processing
- Order processing
- Formulary management support
- (future) Inventory management

### RADIOLOGY

- Order processing
- Procedure logging
- Results processing
- Procedure / patient scheduling
- (future) Image library management



### NURSING

- Patient care assessment
- Care implementation documentation
- Clinical order processing
- (future) Nursing staff management
- (future) Human & physical resource management
- (future) Policies and procedures
- (future) Patient care planning



## CLINICAL DIETETICS

- Nutrition clinic scheduling
- (future) Dietetics administration
- (future) Nutrition assessment
- (future) Menu selections
- (future) Nutrition supplement management

### Appendix D

Computer Inventory - Ireland Army Community Hospital

INSTL	00 00 00 00 00 00 00 00 00 00 00 00 00	05/83 01/81 01/81 01/80 01/80 01/81 05/83	00000000000000000000000000000000000000
SYSTEM	7000	To 810 1106	CATSCAN CATSCAN CATSCAN
USER	AMO AMO CARD I OLOGY CARD I OLOGY CARD I OLOGY CARD I OLOGY DERMAT OLOGY	ICU-CCU Neuro Psychology Nuc Mec Nuc Med Nuc Med Nuc Med Nuc Med Nuc Med Nuc Med PAD PAD PAD PAD PATHOLOGY PATHOLOGY	PATHOLOGY PATHOLOGY PATHOLOGY PATHOLOGY PHYSICAL THERAPY RADIOLOGY
VALUE	@ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	20 80 80 80 80 80 80 80 80 80 80 80 80 80	35 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
TYPE	MODEM TERMINAL PORT MIC POTTMATPRIN PRINTER MODEM MINI TERMINAL PRINTER MODEM PRINTER	MINI Plotter TERMINAL TERMINAL MINI TERMINAL MINI MEDICAL TERMINAL CARD EMBOS MICRO PRINTER	MICRO MONITOR PRINTER TERMINAL MICRO - MONITOR PRINTER MICRO - PRINTER ACOU MODEM ACOU M
ROOM	127 127 2777777 7777777 7777777 NIO-26A NIO-26A XIK-44 XIK-44	2-52 XIC-24 NIG-14 NIG-15 NIG-1 NIG-1 NIG-1 NIG-1 XIC-24 XEB-4A XBB-4A NIF-14A NIF-14A	NIFF-14 NIFF-14 NIG-18 NIG-18 NIG-18 NIG-20 NIG-20 NIG-20 NIG-20 NIG-24
BLDG	1002 1002 851 851 851 851 851 851 851	851 851 851 851 851 851 851 851 851	88 88 88 88 88 88 88 88 88 88 88 88 88
BARCODE	C5375 G4229 G4408	F0313 C5195 C5373 C3176 C5260 F4609	F9806 F9807 F9808 C5234 C5234 C5234 C52249 G3250 C5275 F9276 F9608 F7687
SER NUM	HK13534 AB50604JD8 6AAKA01673 6EXACJ5946 PN78584 187087 187087 E306517 PN54224 349071	17386 559 1149 MMCN-C3838 REV-B-306 18257-248 840352 33291 15515 532958 349147	WF57847 TAB1958 TCC7131A 3010259WR 7267820 1409629 2797048 01020048 112089 M1014792 015728 015728 015731 024333 024333 024333 024333 8201617 840141 409604 83051617 83050528
MODEL	XIK-34 KX-P1091 DECWRTR 4 355 MICRO-MUSE VI 100 DECWRTR 3 355 RX 80 124FR	977-11 977-11 Nova 3 977-11 Nova 3 PATHFINDER Term One CARD THREE 11 e MX 80	350 PRO 350 PRO 1EM-AT 1EM-AT 1EM-5153 737 KSR 3200 4022 8050 CX-20 CX-20 CX-20 FX-8 FX-8 TS 803
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00		212A	5101593	F4449	851	NBD-25	MODEM	300	IMO		61/85
0.		503	M20821	F8173	851	XIA-27	MICRO	4795	FAD		10/83
٥	NORTHERN	850	W- 26103	F8175	851	XIA-27	PRINTER	3698	PAD		10/83
0	TELECOM NORTHERN	583A-FB	M22071	F8174	851	XIA-27	DISK DRIVE	60	PAD		18/83
	TELECOM								1		· !
Φ.	NORTHERN TELECOM	53A	20821	F8173	821	XIA-27	MONITOR	0	PAD		07/83
0	NORTHERN		M2440	F8176	851	XIA-27	KEYBOARD	60	PAD		
ů.	NORTHERN	208A/B	22258-262	F8177	851	XIA-27	MODEM	2458	PAD		10/83
•	TELECOM	) :			) ) )						
1.0			8136578		851	NBE-7A	MICRO		PHARMACY		68/83
1.0		CMP 500	2-04789	F1819	821	NSE-15B	PRINTER	1195	PHARMACY		88/88
0 .		26-1130	3011472		851	NBE-7A	DISK DRIVE	1400	PHARMACY		96/84
9 .			3188143	0	2 2 3 3 4 7	NBE-70	DISK DRIVE		PHAKMACY		40,00
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13	CPT	8588	35721A	F5572	851	XIE-18	KEYBOARD	_	ADJUTANT		09/84
13	CPT	ROTARY 8	19018881	F5573	851	XIE-18	PRINTER		ADJUTANT		99/84
17	SANYO	MBC 558	14126597		821	XBD-8	MICRO		PO&T		03/84
17	BROTHER	DX 15	M31828621		851	XBD-8	PRINTER		PO&T		03/84
7 1	SANYO	CRT-36	18117904		851	XBD-8	MONITOR		PO&T		63/84
17	SANYO		14126648		851	XBD-8	KEY BOARD		PO&T		63/84
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6.		20M 123	1030954		1006		MONITOR				03/84
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22	_	150	54957		851	8-2	PRINTER		S N		05/84
23		S.	1369090	F0351	851	XBG~3	MICRO				10/84
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MODEL	725-2748 318 318 PC PC	56 51 25 50 51	4a 42 U/I	B-1955-1SY B-1955-1CP B-1155-256 B-1155-256 B-1560-6 B-1348-52 B-1486-1 B-1352 B-1352 B-1352	B-1495-35 B-9499-52 B-9999-4 B-1491 B-9361-23 B-9484-51		ET-1100 ET-1100 ET-1100
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MODEL	ET-1100	FT-1198	ET-1100	ET-1100	ET-1199	BET-KB	BET KB		BET KB		BET KB			3ET KB	0	MT 985	ů,	MT 985			TP 130			CT-10004	CT-18884	CT-19884	CT-18684	CT-10004	CT-18884	CT-10004	BET-KB	LA100ZA	LA1002A					OLZZKAR OLZZKAR		σ	Ţ			Œ		VT22KAA	USZKAA	VT22KAA	VT22KAA	VT22KAA
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SYSTEM	AGCESS	AGCESS	AGCESS	ARCESS	AGCESS	AGCESS	AGCESS	ARCESS	ACCESS	AGCESS	AGCESS	AGCESS	AGCESS	ARCESS	AGCESS	AGCESS	AQCESS	AGCESS	ACCESS	AGCESS	AGCESS	111	UAC	UAC	UAC	UAC	UAC	CIAC	UAC	CCA CA	UCA	CA	OCA P	UCA	OCA O	C.A	UCA	UCA	UCA	K)n	CCA	UCA	UAC	O <del>B</del> C	UAC	UAC	OC.	C.F.	e CC	e Co
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ROOM	X1A-27	X1A-29	X1A-29	X1A-27	X1A-27	X1A-27	X1A-27	X1A-27	X1A-27	XBB-7	XBB-7	XBB-7	XBB-7	×88-7	X88-7	XBB-7	XBB-7			X1C-21	X1C-21	X1C-21			AMO OP W					MIDDLE	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NB0-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25	NBD-25
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MODEL	VT22KAA	LA1002A	LA1002A	VT220A2	VT220A2	VT128A2	VT220A2	VT228A2	VT228A2	LA188ZA	LA1002A	VT228A2	VT228A2	VT220A2	VT22KAA	VT22KA	VT22KAA	VT228A2	VT22KAA	LA1002A	VT220A2	VT22KAA	8228	8220	9628	9623	8220	9621	8220	8220	6848	6661	6663	9257	9462	9481	9484	9586	4755	8605	8685	8605	8605	8605	9484	9999	4755	8605	8605	0546
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BLDG	1022 1022 851 851 851 851 851 1022 851 851
BARCODE BLDG	C4907 C3634
SER NUM	10755 60806 461754 T 491958 U 489149 N FL01662 FL01657 4615294 496832 J 474679338 A2792 416498 X 496838 M
MODEL	1610 1810 R 8185 R 4078 D 4276 R 4078 D 4276 R 4078 D 745 R 4078 D 8059 R 4078 D
SIN MANUFACUTRER	99 UNIVAC 99 RAYTHEON 99 RAYTHEON 99 RAYTHEON 99 RACAL 99 RACAL 99 RACAL 99 RAYTHEON 99 TI SILENT 788 99 IBM

Appendix E
CHCS Newsletters



### COMPOSITE HEALTH CARE SYSTEM



M.I.S. IRELAND AN EDUCATIONAL PAPER ABOUT OUR MEDICAL INFORMATION SYSTEM (MIS)

### C.H.C.S. WHAT IS IT?

The Composite Health Care System (CHCS) is a state-of-the-art medical clinics. It is dynamic, easy to use, flexible, reliable and secure. It provides health care professionals and staff with a means for administering the wide range of services offered by both large and small facilities, as well as for meeting DoD regulations. communicating easily with the DEERS. and responding rapidly to mobilization and disaster situations.

But, most importantly, CHCS offers more efficient and more personalized -Mrs. Davidson. Data Processing health care to the millions of patients who cely on the military medical services.

Today's world is a world fueled by information. And no facet of our society is more dependent on accurate. reliable information than the medical profession. That is why CHCS is so valuable to the military medical services.

THE COMPOSITE HEALTH CARE Pamphlet by TRIMIS Program Office. Bethesda, MD

### DEAR ABACUS ???? QUESTIONS ????

Dear Abacus is intended to answer questions that you may have about our new computer system and it will be a regular section of this information paper. If you have a question, just jot it down and send it through distribution to:

Dear Abacus Nursing Education & Staff Development HSYM-DOM-E

### LTC Hill Named C.H.C.S. Program Director

specifically for DoD hospitals and implementation of our new computer namely: information system. He is responsible -To improve the quality of patient care implementation and installation of the operations new system. Other key individuals are: -To enhance the accuracy

> -MAJ Mervis, Site Prep Project Officer Officer

> -MAJ Gray, Mursing Project Officer

-Mr. Skaggs, Comptroller

information system work for us in the istrators access to work load data. best way possible. Let us give them ----our full support.

SFC R. A. Bowman

### C.H.C.S. WHAT WILL IT DO?

CHCS meets objectives essential to LTC James Hill has been appointed administrative and medical staffs of information management system designed as the CHCS Program Director for the all military medical facilities.

for the overall planning, coordination. -To increase the efficiency of

availability of information, and

-To provide standardized, yet flexible. -MAJ Dempsher, Physician Project computer support of essential facility operations.

What makes CHCS such a marked -CPT James. Information Management improvement over current information systems is that it is a fully integrated system. It replaces thousands of outmoded standalone computers with a standardized system These people are representing our that gives health care providers direct best interests in making our computer access to patient records and admin-

> CHCS, Pamphlet by TRIMIS Program Office. Bethesda. MD.

### WIN A \$100.00 SAVINGS BOND

Name Our Computer Contest

Our new computer system needs a name and a symbol. A contest is now underway that, if the name and rough sketch you submit to the committee wins. you win a \$100.00 Savings Bond. For more complete information contact the Administrative Resident - CPT McGibony at phone number 9825.

To enter the contest submit the name of our new computer system along with a simple drawing. Please put your name, work section and phone number on ail items submitted. Send it through distribution to:

> Name Our Computer Contest Administrative Resident HSXM-DAC-R

The deadline for submission is January 26, 1987 at 12:00 o'clock.

GOOD LUCK!



### IRELAND ARMY COMMUNITY HOSP.

CHCS



### COMPOSITE HEALTH CARE SYSTEM



### C.H.I.P.S. AN EDUCATIONAL PAPER ABOUT OUR MEDICAL INFORMATION SYSTEM

### "CHIPS"

### A WINNER

The name CHIPS (Composite Healthcare Information Program System) was selected from among 32 suggestions submitted for the Name Our Computer Contest. The first place name was submitted by Ms. Kathy Beard. five-person commi e (one Medical Corps Officer, one Army Nurse Corps Officer, one Noncommissioned Officer, one soldier, and one civilian employee) reviewed the ideas and selected the top three entries. The second place entry was submitted by LTC Hill who suggested "Med CHeCS" and third place was submitted by SGT Champeau who suggested "COMPCARE". Ms. Beard will receive a \$100.00 Savings Bond for the winning entry. Thanks to those who took the time and effort to enter the contest.

by CPT McGibony

Dear Abacus,

What happens with the data in our new system when there is a power interuption?

Signed.

Energy Conscious

Dear Energy,

Our new system will have an Uninterupted Power Supply (UPS) system. UPS is a battery backup that will automatically save all data currently in the computer and take the computer down (turn it off) so that there is no loss of information or damage to the computer.

The Abacus

Send questions through distribution to:

Dear Abacus
Nursing Education & Staff Development
HSXM-DON-E

### OUTPATIENT PHARMACY 1st TO GO ON LINE

The outpatient pharmacy will be the first area to have "CHIPS" put in The beginning date for running. operation of "CHIPS" in the outpatient pharmacy is projected to be the middle of April, 1987. To get to the operational level, there will be many construction projects in the hallways, and in & around the Pharmacy. Training of the Pharmacy personnel will be conducted at the end of March and the beginning of April. The construction project and training will not interfere with Pharmacy services, and will indeed improve the quality of care provided and increase the efficiency of the pharmacy.

Other areas in the Pharmacy and the rest of the hospital will receive "CHIPS" at different times. "CHIPS" will provide a more efficient and accurate method of documenting patient care in all areas of the hospital. This information paper will keep you informed of the progress and projected dates for the implementation of our new computer system - "CHIPS".

by SFC Bowman

### TERM TALK

Hardware- Those parts of a computer that you can see and touch. The computer and the machines that attach to it: the terminal, printer, keyboard and input devices to name a few.

Software- Instructions that tell the computer what to do. They are controlled by the main computer. The software that our system has is very "user friendly". That means that it is easy to work with.

### IRELAND ARMY COMMUNITY HOSP.



## C. H. I. P. S.



# COMPOSITE HEALTHCARE INFORMATION PROGRAM SYSTEM AN EDUCATIONAL PAPER ABOUT OUR MEDICAL INFORMATION SYSTEM

#### COMPUTER ROOM

#### EXPANDED

The determination to expand the existing computer room from 820 square feet to more than 1500 square feet into the data processing office area was made during the middle of December 1986. The preliminary engineering design and architectural review were performed during the balance of December 1986 and January 1987. With the outstanding support from the Directorate of Engineering and Housing (DEH) and from Purchasing and Contracting (P&C), the renovation requirement was opened for bid and bidding was completed on January 30, 1987.

The contract was awarded to the Woodbine Corporation from Louisville, Kentucky. They started the demolition and renovation work on February 9, 1987. The construction project includes a halon fire suppression system, air conditioning, an uninterupted power supply system, and a specially constructed raised floor as well as other unique requirements for a computer system of the magnitude of CHIPS.

Of course the computer room renovation is only one major portion of the overall project. Completion of the renovation is projected to be March 31, 1987. A ceremony to commemorate the event is being considered. The CHIPS system will be a boost to moral and above all an enhancement to our healthcare delivery system here and throughout the Department of Defense.

by SFC Bowman

### COMPUTERS IN NURSING - A PRACTICAL LOOK -

On March 25 at 1430 hours an inservice about the uses of computers in healthcare will be held in the 9th floor classroom. For more information and reservations call NESDS at 9250.

PS - This is not just for nurses.

#### S.A.I.C. HEADS CONTRACTOR TEAM

Science Applications International Corporation (SAIC) heads a team of contractors that will be installing CHIPS at Ireland. Other contractors include Digital Equipment Corporation (hardware), AT&T Federal Systems (communications), and DI-STAR Medical Information Systems (software). SAIC's team is one of four contractor teams developing individual hospital information systems for the Tri-Service Information System (TRIMIS) Program Office and competing for the right to build an information system for all Department of Defense medical facilities worldwide. other contractor teams are headed by McDonnell-Douglas at Camp Lejeune, NC; by Technicon at Charleston Naval Base, SC; and by Travenol at Sheppard Air Force Base, TX.

by CPT McGibony

Dear Abacus,

In the event CHIPS is not operational for a long time, what do I do when I need to document something?

Sincerely, Trahere

Dear Trahere,

There should not be any prolonged down time. The contract with SAIC calls for 95% to 99% up time. The allowable planned and unplanned down time will be 1 hour and 12 minutes for non-critical functions and just 14 minutes for critical functions every 24 hours. Most planned down time will be in the early morning hours when the use of CHIPS is lowest. There are many backup switching mechanisms that will prevent any prolonged down time. In the most unlikely event of a prolonged down time, a written form of the input would have to be done and then put into CHIPS when it is operational again.

Abacus

#### IRELAND ARMY COMMUNITY HOSP.

# C. H. I. P. S. BULLETIN

IRELAND ARMY COMMUNITY HOSPITAL FORT KNOX, KENTUCKY 40121

May 12, 1987

"C.H.I.P.S.,

THE MOVIE"

A movie about a computer system? YES, and part of it will be filmed here at Ireland Army Community Hospital. The TRIMIS Project Office is updating it's videotape on the Composite Health Care System and will include film footage from all four of the operational test sites. The film will be used to inform other Department of Defense facilities about CHCS. A film crew will be in the hospital during the middle of May 1987. Keep smiling; you may be caught in the action for "CHIPS, The Movie".

By CPT McGibony

NUMBER 87-04

RIBBON-CUTTING CEREMONY

SET FOR NEW

COMPUTER ROOM

There will be a ribbon-cutting ceremony on 14 May 1987 to dedicate the new computer room. The ceremony will take place immediately following the official opening of the hospital's new CAT scan room scheduled for 0900 hours that day. Guests of honor for the ceremony will be MG Tait, Commander, USA Armor Center and Fort Knox; COL Tilton, Directorate of Engineering and Housing; and Mr. Edlin, Chief, Contract Administration Division, Directorate of Contracting.

By CPT McGibony



#### TRAINING

With the addition of CHIPS to Ireland's health care delivery system, comes the opportunity to expand our knowledge and experience. Training of all personnel is a key ingredient in making CHIPS a success. The better the training, the more effective CHIPS will be in improving our health care delivery system.

The CHIPS training area will be in the bay area of Ward 9A. The area is receiving many improvements that will result in an excellent training area with many on-line terminals, and professional trainers employed by the contractor (SAIC) to meet each individuals computer education needs.

The primary method of training will be through computer assisted instruction (CAI). CAI is a method of teaching that allows people to learn at their own pace and to receive help and individual instruction from the trainers as needed. Each person will require a different amount of time to train, depending on their catagory. Training will be a minimum of two hours for the least technical catagory of personnel and a maximum of nine hours for the most technical users.

By SFC Bowman

#### MUMPS SOFTWARE TO BE USED

Two of the three major units for the CHIPS Central Processing Unit (CPU) have already been installed in the new computer room. Software must be added in order to operate the equipment. The software that will be used is written in MUMPS (Massachusetts General Hospital Multi-Program System) programming language. This language is used by the Veterans Administration system and over 50% of civilian medical facility systems.

By CPT McGibony

Effective until November 12, 1987



# C. H. I. P. S.



Number 87-05

# SERVICE BULLETIN IRELAND ARMY COMMUNITY HOSPITAL FORT KNOX, KENTUCKY 40121

July 23, 1987

#### CHIPS AWAKENED from HIBERNATION

After an apparent lull in activity, the pace is beginning to pick-up again on the implementation of the hospital's new Composite Health Care System. Part of the delay was caused; by the testing of the software programs to be used with CHIPS. The bugs" in a software package must be worked out before the Tri-Service Medical Information System Project Office will approve it for use at Ireland Army Community Hospital. The software for Pharmacy has been approved and the software for Radiology is; expected to be approved later this month. Another sign of CHIPS awakening is the data communication lines being strung throughout the hospital. There are approximately 6 miles of cable being used on this project. The lines will connect the computer terminals that will eventually be placed in designated locations.

by CPT McGibony

#### TERM TALK

Cursor: A blinking character displayed on the screen that tells where your next action will take effect or where the next character typed will appear.

Hard Copy: Information printed on paper.

Database: That part of our computer system that organizes, stores, retrieves, modifies, and reports information.

#### DEAR ABACUS.

I am worried about CHIPS training. Would working on the PLATO computer help prepare me for CHIPS training?

Dear Worried,

Using the PLATO computer terminal would certainly help anyone with their basic understanding of computers and computer terminology. There are many training modules on the PLATO computer that help develop an understanding of computers in general. However, the programs on PLATO will not teach about CHIPS system. There is some the unfortunate news about the PLATO terminal located on the 9th floor in Nursing Education and Development - it is being taken out due to a change of policy at the Fort Knox PLATO Office.

If you have questions for The Abacus, send them through distribution to:

Dear Abacus Nursing Education & Staff Development HSXM-DON-E

#### HELP WANTED

CHIPS is seeking the assistance of a few highly motivated and talented individuals to assist in the assembly of antigravitational devices for printers. For more information and to

VOLUNTHER!

Call CPT James at 9894.

FOR THE COMMANDER:

Expires in 6 months.

James R. Hill LTC, MS Project Director E-5



Number 87-06

# C. H. I. P. S.



SERVICE BULLETTIN
IRELAND ARMY COMMUNITY HOSPITAL
FORT KNOX, KENTUCKY 40121

September 9, 1987

#### GET ON YOUR MARK, GET SET, GO!

The long awaited training of personnel on CHIPS has started. Pharmacy personnel began the first training sessions on August 17, 1987. Sther departments will start training soon, with the majority of personnel trained by February 1988.

The following tenative training plan has been established. Each group will receive training prior to the system coming on line in their work areas. Each individual will attend 2 or 3 sessions with each session lasting approximently 3 hours. Coordination of the specific training times for each individual will be accomplished through the OIC or NCOIC of each area about 3 to 4 weeks in advance of the training. The areas will be trained in the following basic groups:

- 1. Outpatient Pharmacy, PAD, Patient Appointment System, Radiology, Pathology, and Inpatient Pharmacy.
- ? IMC, Dermatology, Allergy, Immunizations, HMC, Inhalation Therapy, Wards 2A(ICU), 7B(Medicine), and 8A(ARD).
- 3. Psychiatry, Social Work Services, CMHS, Ward 4A(Psychiatric).
- 4. Pediatric Clinic, Well Baby, EFMP, Ward SA(Pediatrics), and SC(NBN).
- 5. Surgical and Urology Clinic, Opthomology, ENT, Audiology, Optometry, Hospital Dental Clinic, Ward 5B(Surgical), Recovery room, Cperating Room, and Anesthesiology.
- 6. CB/GYN Clinic, Ward 3B(Post Partum), 3D(Labor & Delivery).

- 7. Orthopedic Clinic, Podiatry, PT, OT, Ward 68(Orthopedic).
- 8. ER, GMC.
- 9. CES, Preventive Medicine, TMC's & ATMC, Food Service, Nutrition Care.

All personnel will receive their training on CHIPS in the newly remodeled training area on the 9th floor, behind Nursing Education & Staff Development. Anyone may come by for a tour of the training area before they begin their training. Training of ail personnel is a vital key to making CHIPS a success. The better the training, the more effective CHIPS will be in improving our health care delivery system.

#### LEARN MORE ABOUT COMPUTERS

Would you like to know about computers and information systems? There are several sources locally available. The Medical Library has the magazines Computers In Healthcare and Computers In Nursing. In addition, weekly articles on computers information systems can be found in many professional journals, such as <u>Hospitals</u> and <u>Modern Healthcare</u>. Information Management Office has more technical magazines: Byte, Info World, Computer World, and PC Tech Journal. Barr Library has several books on the subject. Some of the titles include: Exploring with Computers, Beginners Guide to Computers, Computer Basics, Meet the Computer, and Computers in Government and the Military. Take the opportunity to review these resources.

Expires in 6 months.

E-6

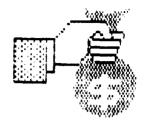
Contributors: CPT McG:bony SFC Bowman James R. Hill LTC, MS Project Director Appendix F

Name the Computer Contest Flyer

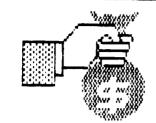


# COMPOSITE HEALTH CARE SYSTEM

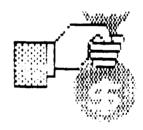


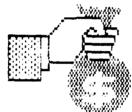


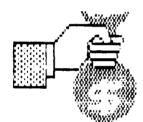
# NAME OUR COMPUTER



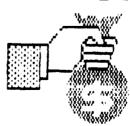


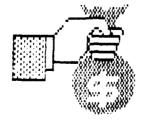






U.S. SAVINGS BOND







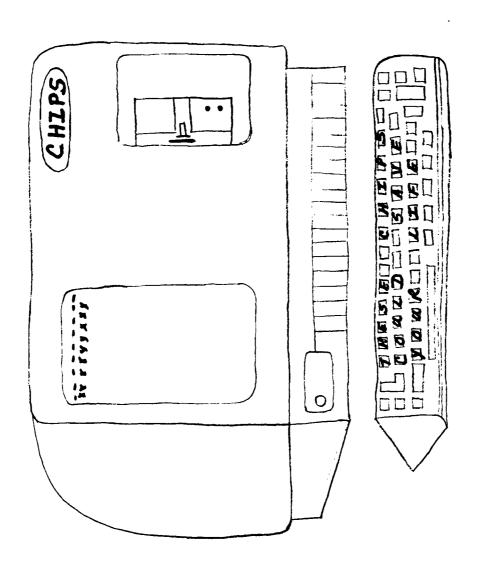
SEE OTHER SIDE FOR DETAILS

Appendix G

Top Three (3) Finalists - Name the Computer Contest

# CHIPS

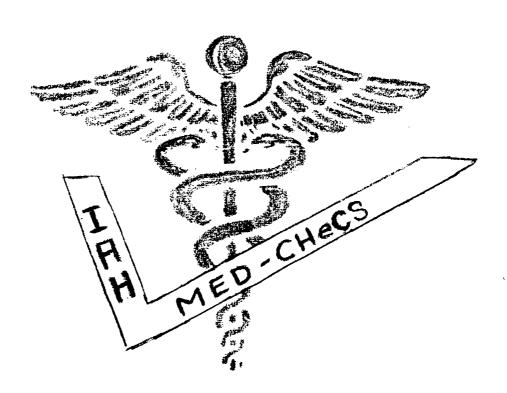
( Composite Healthcore INFOEMATION Frogam System)



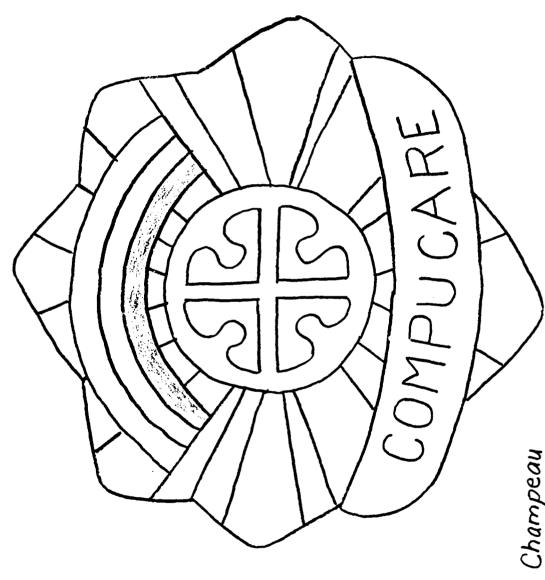
KATHY D. BEARD Adjutant's OFFICE

0486

# TRELAND ARMY HOSPITAL MEDICAL COMPOSITE HEALTH CARE SYSTEM

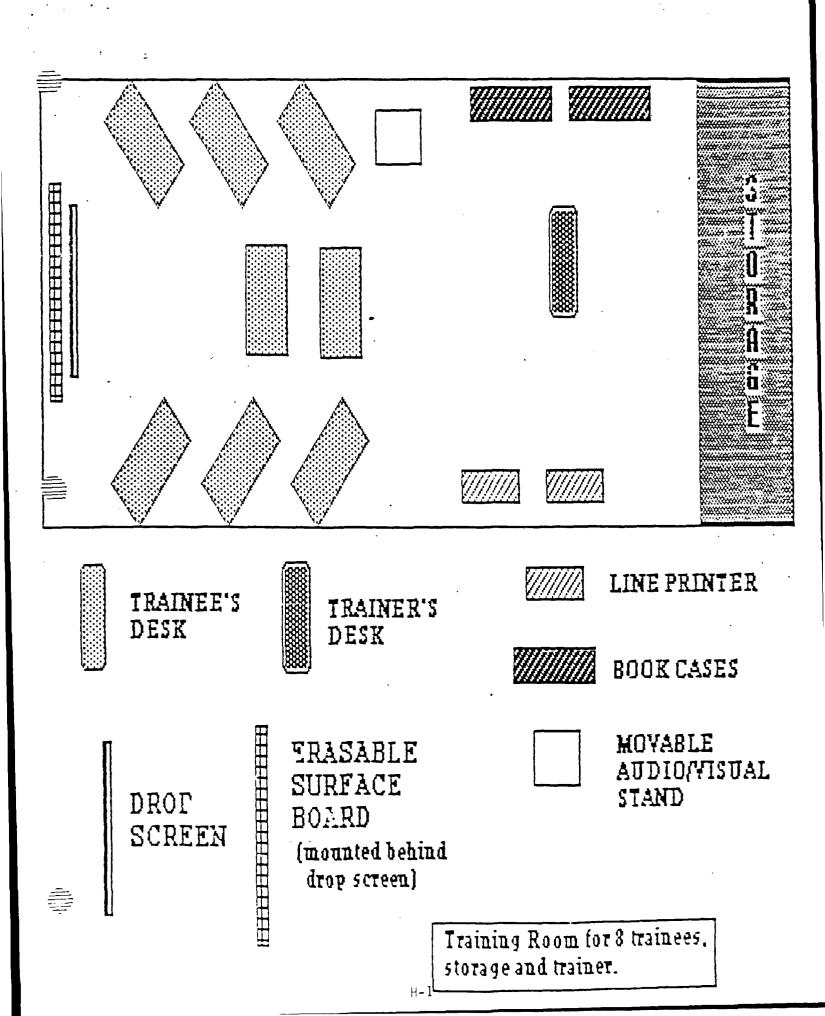


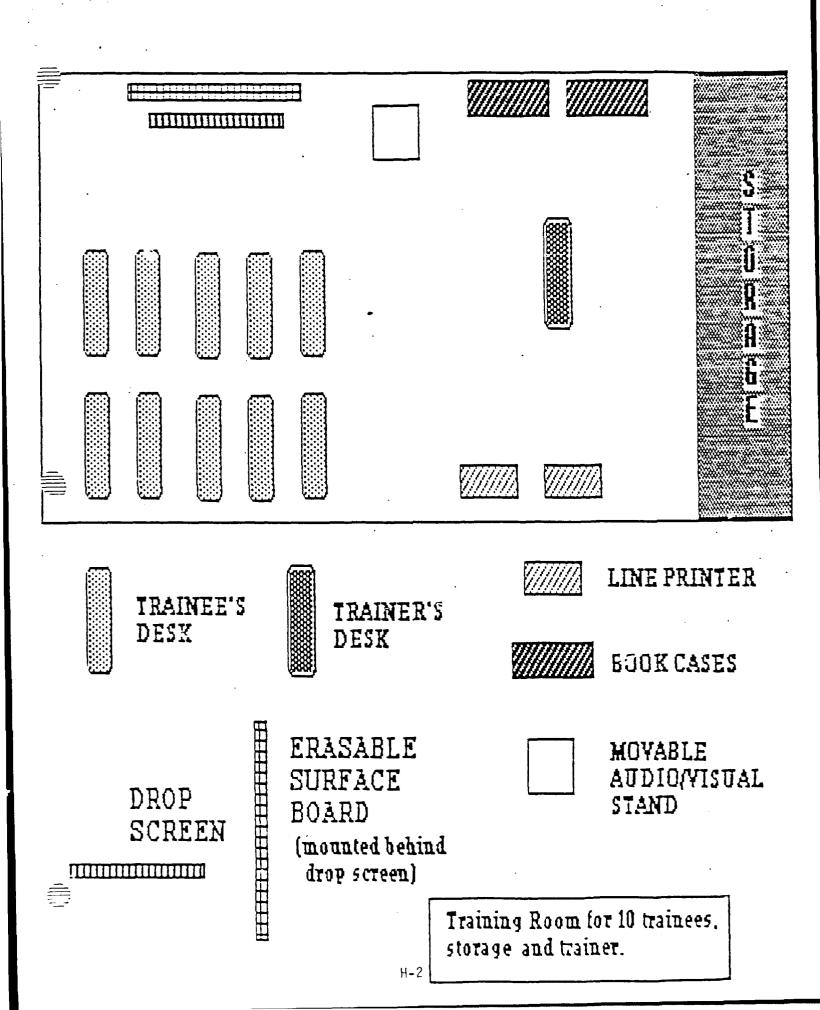
JAMES R. HILL LTC, MSC Chief. CSD

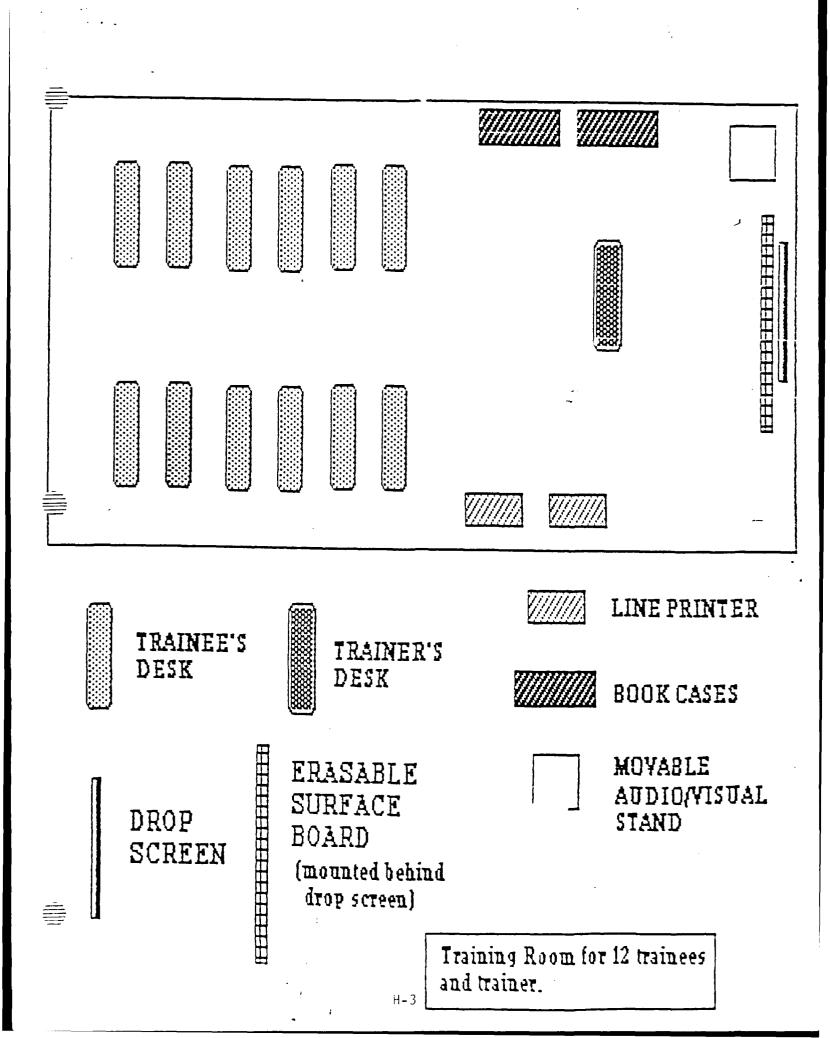


SGT William P. Champeau Occupational Therapy 9964

Appendix H
Training Room Floor Plans







Appendix I
CHIPS Reflective Dot

CHIPT

Appenaix J
Fort Knox Population Served

# FORT KNOX POPULATION SERVED AS OF 30 JUN 1987

ON-POST POPULATION
Military Family Members(10,908)
OFF-POST POPULATION
TOTAL POPULATION SERVED

Appendix K
Pharmacy Registration Flyer



#### PHARMACY PATIENTS



The hospital is installing a new computer system. In order to serve you better, it will be necessary for you to register in the system before you turn-in a prescription. This system should not be confused with DEERS. You can register at the <u>Outpatient Lobby Information Desk</u> next to the Pharmacy. Only a minimum amount of information will be required. You will only need to register once. We thank you for your cooperation.



#### PHARMACY PATIENTS



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Appendix L Newspaper Article

# DoD using Ireland as one of four test sites for computer contracts

By Sp4 MIKE HAGBURG Inside the Turret staff writer

The first unit of what will be the Army's most advanced hospital computer system has arrived at Fort Knox and will soon be installed at Ireland Army Community Hospital.

The computer system is being installed as part of a Department of Defense operational test, said Lt. Col. James Hill, chief of the Clinical Support Division at Ireland Hospital. It is one of four such systems that will be tested at DoD installations to defermine the winner of the DoD hospital computer contract.

Four corporations are vying to win this contract, according to fiill. Systems will be installed by McDonnell-Douglas at Camp Le-Jeune Marine Base, by Technicon at Charleston Naval Base, by Travenal at Sheppard Air Force Base and by Science Applications International Corporation (SAIC) at Knox.

uated from Sept. 1 until the end of November and then one contractor will be chosen from the four sometime in January, 1988,"

The winning contractor will then test its system in 13 'beta' sites throughout DoD.'

"If the system passes this test it will be employed in some 700 DoD facilities," said Hill "It's a large project—the final contract will amount to about \$1.2 billion".

(Continued from page 1A)

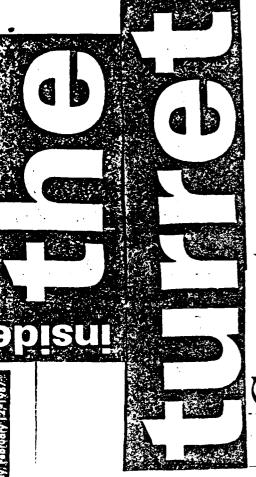
Hill believes the system will significant! improve the quality of medica are at Ireland Hospi-

"It's a hospital information system that will work to assist the providers (doctors, nurses, and technicians) in taking care of paperwork functions in a more orderly, faster way," said Hill. "It cuts down the amount of paperwork they have to write, so they can spend more time with patients.

"It's a composite health care system that will take all the hespital's areas—pharmacy, lab, radiology, nursing, patient appointments—and tie them together."

The system will provide doctors with easier access to patient information, simplify preparing records and reports, and make records and rical and diagnostic

See COMPUTER, page 12A



services more efficient.

"Currently, if a doctor wants to write a prescription for a patient, he has to write it out, put all the necessary information on it, and give it to the patient," said Hill. "The doctor then documents the prescription in the patient's records and the patient takes it down to pharmacy."

"The pharmacist then takes it, determines all proper instructions, fills it, labels it and gives it to the patient."

The new computer, however, will streamline this process.

ing, the physician will enter the prescription he wants into the computer," said Hill. "It will automatically go into the partient's records and will be sent to the pharmacy.

dabel and count out the pills. It will do an allergy check to make sure the patient isn't allergic to the medication, give all special

instructions, and do a dosage check to assure that the dosage prescribed is within the parameters of the drug.

"All the pharmacy will have to do is fill the bottle and put the label on it. It should be almost ready by the time the patient gets down to the pharmacy."

Ireland Hospital, installation staff, and SAIC have been working closely to get the system up and running, according to Hill. It should be completely operational by Sept. 1.

"The contractor has the major responsibility for coming in, installing, training and making the system work," said Hill. "Our ultimate goal is to develop a system that helps the hospital take better care of its patients.

"The system is a forerunner of what hospital computer systems—military and civilian—are going to be like in the 1990s. But we're going to have it now."